

Comparing Your Results: Preliminary Benchmarks on the Hospital Survey on Patient Safety Culture (HSOPSC)

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Developed by Westat under contract for the Agency for Healthcare Research and Quality (AHRQ)

Purpose and Use of this Document

- Preliminary benchmarks are provided for the items and safety culture dimensions on the Hospital Survey on Patient Safety Culture (HSOPS) to allow hospitals to compare their survey results against the results from 20 hospitals that participated in a pilot test of the survey in 2003.
- **NOTE:** When comparing your hospital's results against the benchmarks provided in this document, keep in mind that these benchmarks are from very limited numbers of staff and hospitals and will only provide a very general indication of how your hospital compares to other hospitals.

At this time, there is no central repository for hospitals to submit data for benchmarking purposes. However, AHRQ plans to support a national benchmarking database in the future, which would provide more extensive comparative data. More details will be forthcoming when they are available.

Overview

- Preliminary benchmarks are provided for the survey items and for composite scores on the safety culture dimensions based on pilot data obtained from over 1400 staff from 20 hospitals.
- Basic descriptive data are provided about the respondents and hospitals that participated in the pilot.
- This document also contains a description of how to calculate your hospital's composite scores on the Hospital Survey on Patient Safety Culture (HSOPSC).

Survey Background

The *Hospital Survey on Patient Safety Culture* was developed under funding from the Agency for Healthcare Research and Quality (AHRQ) and was sponsored by the Medical Errors Workgroup of the Quality Interagency Coordination Task Force (QuIC—consisting of representatives from 11 Federal agencies). To develop this safety culture

assessment tool a review of research pertaining to safety, error and accidents, and error reporting was conducted, as well as an examination of existing published and unpublished safety culture assessment tools. In addition, hospital employees and administrators were interviewed to identify key patient safety and error reporting issues. The resulting *Hospital Survey on Patient Safety Culture* assesses 12 areas or dimensions of patient safety:

1. Overall perceptions of safety
2. Frequency of events reported
3. Supervisor/manager expectations and actions promoting safety
4. Organizational learning—Continuous improvement
5. Teamwork within units
6. Communication openness
7. Feedback & communication about error
8. Nonpunitive response to error
9. Staffing
10. Hospital management support for patient safety
11. Teamwork across hospital units
12. Hospital handoffs & transitions

Safety culture can be defined as the set of values, beliefs, and norms about what's important, how to behave, and what attitudes are appropriate when it comes to patient safety in a work group or organization. The *Hospital Survey on Patient Safety Culture* is intended to help hospitals assess the extent to which their cultures emphasize the importance of patient safety, facilitate open discussion of error, encourage error reporting, and create an atmosphere of continuous learning and improvement.

Description of 20 Benchmark Hospitals

In 2003, a pilot test of the *Hospital Survey on Patient Safety Culture* was conducted and completed surveys were received from over 1,400 staff from 20 different hospitals across the U.S. Data from these 20 pilot hospitals were analyzed and average scores were calculated on the survey items and each of the 12 dimensions of safety culture to allow hospitals to make benchmarking comparisons against these 20 pilot sites.

To ensure a diverse sample was obtained, pilot hospitals were from six different states, with 13 teaching hospitals and 7 non-teaching hospitals, and a range of hospital sizes (Table 1). In addition, there were two for-profit hospitals, a Veterans Administration hospital, and a geriatric hospital.

Table 1. Teaching Status & Bed Size of the 20 Pilot Hospitals

	Small (less than 300 beds)	Medium (301 - 500 beds)	Large (over 500 beds)
Teaching	4	3	6
Non-teaching	5	1	1

The overall survey response rate among the 20 hospitals was 29% (1,419 responses out of 4,928 surveys administered). The average response rate for each hospital was 38% (range--17% to 81%) and the average number of respondents per hospital was 71 (range--26 to 162 respondents). Table 2 shows descriptive information about the respondents from the 20 benchmark hospitals.

Table 2. Descriptive Information About Respondents from the 20 Benchmark Hospitals

1. Primary hospital work area, department or clinical area where respondents spend most of their work time:

- 7% Many different hospital units/No specific unit
- 12% Medicine (non-surgical)
- 15% Surgery
- 4% Obstetrics
- 2% Pediatrics
- 5% Emergency department
- 19% Intensive care unit (any type)
- 1% Psychiatry / mental health
- 4% Rehabilitation
- 7% Pharmacy
- 6% Laboratory
- 1% Radiology
- 2% Anesthesiology
- 15% Other

2. Staff position in the hospital:

- 49% Registered nurse
- 1% Physician assistant / Nurse practitioner
- 3% LVN / LPN
- 4% Patient care asst / Aide / Care partner
- 5% Attending / Staff physician
- 4% Resident physician / Physician in training
- 5% Pharmacist
- 4% Dietician
- 11% Unit assistant / Clerk / Secretary
- 3% Respiratory therapist
- 1% Physical, occupational, or speech therapist
- 3% Technician (e.g., EKG, Lab, Radiology)
- 3% Administration / Management
- 4% Other

3. Time worked - in the hospital (hours)

- 6% Less than 20 hours
- 32% 20 to 39 hours
- 62% 40 hours or more*

(*This was the highest response on the pilot version of the survey, but the current survey has additional categories: 40 to 59 hours, 60 to 79 hours, 80 to 99 hours, 100 hours or more.)

4. Time worked - in the hospital (years)

0% Less than 1 year

7% 1 to 5 years

45% 6 to 10 years

19% 11 to 15 years

16% 16 to 20 years

13% 21 years or more

Comparing Your Results: Item-level Benchmarks

To compare your hospital's results on any item from the *Hospital Survey on Patient Safety Culture*, you first need to calculate your hospital's percentage of positive responses on each item.

For *positively* worded items, this means simply calculating the total percentage of respondents who answered positively (combined percentage of "Strongly agree" and "Agree" responses, or the "Always" and "Most of the time" responses, depending on the response categories used for the item).

For *negatively* worded items, calculate the total percentage of respondents who answered negatively (combined percentage of "Strongly disagree" and "Disagree" responses, or "Never" and "Rarely" responses, since a *negative* answer on these items indicates a *positive* response).

Once you have calculated your hospital's percentage of positive responses on each item, compare your results with the average percentage of positive responses from the 20 benchmark hospitals, shown in Table 3. Table 4 shows the distribution of responses to the Patient Safety Grade question.

- **Use a 5% difference as a rule of thumb when comparing your hospital's results to the benchmarks.** Your hospital's percentage should be at least 5% higher than the benchmark to be considered "better," and should be at least 5% lower to be considered "lower" than the benchmark.
- **Keep in mind that benchmarking only provides *relative* comparisons.** Even though you may find your hospital's results are better than the benchmark, you may still believe there is room for improvement in an *absolute* sense.

Table 3. Item-level Benchmarks

Hospital Survey on Patient Safety Culture Survey Items	Item-level Benchmarks: Average % of positive responses across 20 hospitals
Notes: --The code after the survey item (e.g., A14) indicates the original survey question number. --An "R" indicates a question that was worded in reverse; therefore, % of "positive" responses was determined by the % of staff responding "Strongly disagree/Disagree" or "Never/Rarely" on these items.	
<u>Overall Perceptions of Safety</u>	
1. Patient safety is never sacrificed to get more work done. (A15)	50%
2. Our procedures and systems are good at preventing errors from happening. (A18)	67%
R3. It is just by chance that more serious mistakes don't happen around here. (A10)	56%
R4. We have patient safety problems in this unit. (A17)	53%
<u>Frequency of Events Reported</u>	
1. When a mistake is made, but is <u>caught and corrected before affecting the patient</u> , how often is this reported? (D1)	43%
2. When a mistake is made, but has <u>no potential to harm the patient</u> , how often is this reported? (D2)	42%
3. When a mistake is made that <u>could harm the patient</u> , but does not, how often is this reported? (D3)	71%
<u>Supervisor/Manager Expectations & Actions Promoting Patient Safety</u>	
1. My supervisor/manager says a good word when he/she sees a job done according to established patient safety procedures. (B1)	63%
2. My supervisor/manager seriously considers staff suggestions for improving patient safety. (B2)	68%
R3. Whenever pressure builds up, my supervisor/manager wants us to work faster, even if it means taking shortcuts. (B3)	72%
R4. My supervisor/manager overlooks patient safety problems that happen over and over. (B4)	77%
<u>Organizational Learning—Continuous Improvement</u>	
1. We are actively doing things to improve patient safety. (A6)	78%
2. Mistakes have led to positive changes here. (A9)	68%
3. After we make changes to improve patient safety, we evaluate their effectiveness. (A13)	68%

Hospital Survey on Patient Safety Culture Survey Items	Item-level Benchmarks: Average % of positive responses across 20 hospitals
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Teamwork Within Units

1. People support one another in this unit. (A1)	84%
2. When a lot of work needs to be done quickly, we work together as a team to get the work done. (A3)	81%
3. In this unit, people treat each other with respect. (A4)	72%
4. When one area in this unit gets really busy, others help out. (A11)	59%

Communication Openness

1. Staff will freely speak up if they see something that may negatively affect patient care. (C2)	72%
2. Staff feel free to question the decisions or actions of those with more authority. (C4)	43%
R3. Staff are afraid to ask questions when something does not seem right. (C6)	65%

Feedback and Communication About Error

1. We are given feedback about changes put into place based on event reports. (C1)	48%
2. We are informed about errors that happen in this unit. (C3)	52%
3. In this unit, we discuss ways to prevent errors from happening again. (C5)	58%

Nonpunitive Response to Error

R1. Staff feel like their mistakes are held against them. (A8)	47%
R2. When an event is reported, it feels like the person is being written up, not the problem. (A12)	47%
R3. Staff worry that mistakes they make are kept in their personnel file. (A16)	33%

Hospital Survey on Patient Safety Culture Survey Items		Item-level Benchmarks: Average % of positive responses across 20 hospitals
<p>Notes:</p> <p>--The code after the survey item (e.g., A14) indicates the original survey question number.</p> <p>--An "R" indicates a question that was worded in reverse; therefore, % of "positive" responses was determined by the % of staff responding "Strongly disagree/Disagree" or "Never/Rarely" on these items.</p>		
<u>Staffing</u>		
1. We have enough staff to handle the workload. (A2)		40%
R2. Staff in this unit work longer hours than is best for patient care. (A5)		54%
R3. We use more agency/temporary staff than is best for patient care. (A7)		67%
R4. We work in "crisis mode" trying to do too much, too quickly. (A14)		37%
<u>Hospital Management Support for Patient Safety</u>		
1. Hospital management provides a work climate that promotes patient safety. (F1)		72%
2. The actions of hospital management show that patient safety is a top priority. (F8)		60%
R3. Hospital management seems interested in patient safety only after an adverse event happens. (F9)		49%
<u>Teamwork Across Hospital Units</u>		
1. There is good cooperation among hospital units that need to work together. (F4)		54%
2. Hospital units work well together to provide the best care for patients. (F10)		59%
R3. Hospital units do not coordinate well with each other. (F2)		41%
R4. It is often unpleasant to work with staff from other hospital units. (F6)		57%
<u>Hospital Handoffs & Transitions</u>		
R1. Things "fall between the cracks" when transferring patients from one unit to another. (F3)		42%
R2. Important patient care information is often lost during shift changes. (F5)		58%
R3. Problems often occur in the exchange of information across hospital units. (F7)		38%
R4. Shift changes are problematic for patients in this hospital. (F11)		42%

Table 4. Benchmarks for Patient Safety Grade

Section E: "Please give your work area/unit in this hospital an overall grade on patient safety."

Patient Safety Grade	Average % response across 20 hospitals*
A – Excellent	15%
B – Very Good	47%
C – Acceptable	30%
D – Poor	8%
E – Failing	<1%

*Excludes missing values from total percentages

Comparing Your Results: Composite-level Benchmarks

In addition to comparing your hospital's results from the *Hospital Survey on Patient Safety Culture* on *each item*, you can obtain a summary view of how your hospital compares to other hospitals by examining composite scores. A composite score summarizes how respondents answered *groups of items* that all measure the same thing. Composite scores on the 12 safety culture survey dimensions tell you the average percentage of respondents who answered positively when looking at all of the survey items that measure each safety culture dimension. Composite scores allow a summary benchmarking comparison because you only compare against 12 safety culture dimensions rather than 42 separate survey items.

How to Calculate Composite Scores on the 12 Safety Culture Dimensions

First you need to calculate your hospital's composite score or average percentage of positive responses on each safety culture dimension. The composite score percentage is calculated by dividing the number of positive responses on all the items in a dimension by the total number of positive, neutral, and negative responses to those items (excluding missing responses).

Here is an example of computing a composite score for Overall Perceptions of Safety.

1. There are four items in this dimension—two are positively worded (survey items # A15 and # A18) and two are negatively worded (survey items # A10 and # A17). Keep in mind that DISAGREEING with the negatively worded items indicates a POSITIVE perception of safety.
2. To count the total number of positive responses, the example table below would be completed:

Four items measuring "Overall Perceptions of Safety"	For positively worded items, count the # of Strongly agree or Agree responses	For reverse worded items, count the # of Strongly disagree or Disagree responses	Total number of "positive" responses	Overall number of responses to the item
Item A15-positively worded				
"Patient safety is never sacrificed to get more work done"	120	NA*	120	260
Item A18-positively worded				
"Our procedures and systems are good at preventing errors from happening"	130	NA*	130	250
Item A10-reverse worded				
"It is just by chance that more serious mistakes don't happen around here"	NA*	110	110	240
Item A17-reverse worded				
"We have patient safety problems in this unit"	NA*	140	140	250
* NA = Not applicable		TOTALS:	500	1,000

In this example, there were 500 positive responses divided by 1,000 total responses which results in a Composite Score of .50 or 50% on Overall Perceptions of Safety. This means that an average of about 50% of the people responded positively on survey items about overall perceptions of safety.

Once you have calculated your hospital's composite score percentage of positive responses on each of the 12 safety culture dimensions, you can compare your results with the composite-level results from the 20 benchmark hospitals, shown in Table 5.

- **Use a 5% difference as a rule of thumb when comparing your hospital's results to the benchmarks.** Your hospital's percentage should be at least 5% higher than the benchmark to be considered "better," and should be at least 5% lower to be considered "lower" than the benchmark.
- **Keep in mind that benchmarking only provides *relative* comparisons.** Even though you may find your hospital's results are better than the benchmark, you may still believe there is room for improvement in an *absolute* sense.

Table 5. Composite-level Benchmarks

Hospital Survey on Patient Safety Culture Survey Dimensions	Composite-level Benchmarks: Average % of positive responses across 20 Hospitals
Overall Perceptions of Safety (4 survey items)	56%
Frequency of Events Reported (3 survey items)	52%
Supervisor/Manager Expectations & Actions Promoting Patient Safety (4 survey items)	71%
Organizational Learning--Continuous Improvement (3 survey items)	71%
Teamwork Within Units (4 survey items)	74%
Communication Openness (3 survey items)	61%
Feedback & Communication About Error (3 survey items)	52%
Nonpunitive Response to Error (3 survey items)	43%
Staffing (4 survey items)	50%
Hospital Management Support for Patient Safety (3 survey items)	60%
Teamwork Across Hospital Units (4 survey items)	53%
Hospital Handoffs & Transitions (4 survey items)	45%